

- Trickling filters
- Bio disc system
- Conventional activated sludge
- Non-conventional activated sludge:
 - Single sludge system
 - Multi-sludge system

Oxidation Ponds (Lagoons)

Heterotrophic bacteria degrade sewage organic matter within ponds producing mineral products

Oxygen produced by algae compensate poor O_2 condition created by heterotrophic bacteria

The pond should be shallow, about 10 feet deep

Bacteria and algal cells settle at the bottom of the pond

Aerobic processes

- Oxidation pond
- Activated sludge
- Trickling filter

Anaerobic processes

- Septic tank
- Anaerobic digestion

Trickling Filter

This system is simple but expensive

Sewage is distributed by revolving sprinkler suspended over a bed of porous material

The sewage slowly percolates through this porous bed and the effluent is collected the bottom

The porous material of the filter bed becomes coated with a dense, slimy bacterial growth

The slimy matrix harbors a heterogenous microbial community

The bacterial community dissolves organic nutrients in the sewage, reducing BOD of the effluent

Preview from Notesale.co.uk
Page 5 of 7